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AROUND THE LAKES.

CLEVELAND.

The barge Saginaw has been raised and placed out of the way of harm in the old river bed.

Captain Greenhalgh's tug Mary Virginia is receiving some improvements, in the way of a new heater, etc.

The scow M. O. Keyes was libeled on Tuesday by Franz Lenzke, who claims $12.75 seaman's wages.

The schooner Garibaldi, which went on the rocks in the Sault river recently, was damaged to the extent of $800.

The schooner D. P. Heath, from Muskegon, lost forty thousand shingles from her deckload in the squall of Racine.

The present breakwater, in its completed condition, will be surmounted by a parapet to obstruct the seas from running over it.

The cargo on board the schooner Lucy A. Clark, sunk last fall in Little Travers Bay, has been recovered, and there is probability of the vessel being raised.

It is said that Captain Anderson, immediately after the collision with the steambarge Osborne telegraphed his resignation as master of the Alberta. It is well.

It is thought that Captain McIntyre will take command of the steamship Alberta, as it was given out that he was to be master of one of the Scotch boats when they came on the lakes.

At the Globe drydock since our last report the barge Star of the North received some new plank, had her bottom calked and a leak stopped and the propeller Smith Moore had her sternbearing brasses adjusted.

On Thursday the Canadian Pacific railway propeller Alberta was libeled by the owners of the propeller Pacific for the damage done to that steamer July 9 by collision. The owners of the Pacific claim that they are entitled to $3,142,50.

Captain Thomas Wilford and the crew of the sunken steambarge Osborne desire to extend thanks to the officers and men of the Hecla, which took them in tow for many courtesies. Captain Graves in his kind attention provided them with everything necessary for their comfort.

A libel was filed in the United States district court on Friday last by the Globe Iron Works against the river tug Balize for $299 10c. and interest from August 7, 1883, being on an account for repairs and material furnished the tug in 1883. She was seized by the United States marshall and held until Saturday when the claim and costs were settled in full and the boat released.

The steamer Progress, Captain L. B. Goldsmith, master, arrived at this port Monday afternoon at 3 o'clock. In doing this she has completed a very quick round trip, which is shown by the fact that she left this port on last Wednesday night at 12:30, and proceeding light to Escanaba took on a cargo of 1,820 tons of ore and returned at the hour above named, thus completing the round trip in less than five days.

The tugs Mary Virginia and C. E. Bolton, of the White Stack Line have returned to this port to stay after spending some weeks in the towing business at Ashtabula. Captain Greenhalgh has found it impractical to do a successful towing business at two different ports. He has now again concentrated his forces and will do the best he can in these dull times at the harbor of Cleveland. Captain E. J. Brown, looks after the interest of the line here.

The steambarge Mary Pringle, now at this port, has had her main boiler flues patched up, and her small boiler flues are out undergoing repairs at the Globe Iron Works.

Mr. Richardson, of the firm of H. J. Webb & Co., managing owner of the J. M. Osborne, has been in Detroit on business, looking toward the settlement of the collision, with the owners of the steamer Alberta.

Charles M. Hazen, has assumed the steamboat oil business heretofore owned by Bartlett & Co., at 93 River street, Cleveland, and is prepared to furnish all kinds of lubricating and other oils at reasonable prices.

CHICAGO.

Special to the Marine Record.

A movement is on foot among tug owners looking to the reduction of expense in the management of tugs but some of the owners are in favor of reducing the wages of the men, a mode that is not likely to prevail as they are liable to the same amount of hard work as would be done in better times.

The Goodrich passenger steamers are said to be well patronized. Every steamer brings in and takes out large crowds of passengers, who seize opportunities to escape the heat and business of the city by taking a day of recreation on the lake. The Lake Superior steamers are also doing well.

The tug Alpha was disabled when out on the lake Sunday, by her piston going through the cylinder head, and was towed to the Featherstone Works for repairs.

The United States steamers Dahlia and Andy Johnson have arrived at this port during the past week.

The new Rush street bridge is a great improvement on the old one, and the machinery which runs it works first rate. The electric light used thereon is much admired.

The steamship Lycoming, Captain James Todd, struck an obstruction in the draw of the 16th street bridge, last Saturday and broke her wheel and stern bearing. She went to Miller Brothers' drydock, and got fixed up.

At Miller Brothers' drydock the schooner George got about thirty feet of new garboard plank and some calking; the Anchor Line steamship Lycoming a new Sheriff wheel and a new stern bearing; the Two Fannies got a leak stopped.

Many vessels are laying in ordinary waiting for charters. Some of their owners have serious thoughts of laying them up, as the present freights are not paying.

Captain David Williams, of the schooner Windsor, which arrived at this port last Thursday, picked up two men named Fred. H. Veloy and John Henry, of Chebeygan, about sixteen miles east from Cheboygan, Mich. They stated that they were going from Detour to Cheboygan when their yacht capsized in a heavy wind and sea on Saturday. They clung to her until Sunday at 2 a. m., when Captain Williams, hearing their cries, rescued them in a very exhausted state, and generously landed them at Cheboygan.

Matters are getting very serious along the docks for want of proper police protection. Robberies are frequent and vesselmen are assaulted and beaten when endeavoring to protect their property. Police Constable Murphy, who is along the docks in the daytime, does his very best to keep things in order, but as soon as he is off duty the trouble commences. Why do the city authorities allow such a state of things to exist?

Captain Andrew Rattray of the tug Mocking Bird, gives great praise to the boys at the life saving station at Sand Beach harbor. He says the Two Fannies must have gone to the bottom without their efforts. He also remembers the great service rendered him some time ago, when the Mocking Bird broke down and dispatches were conveyed some twelve miles through the woods by them to enable him to get aid from Port Huron.

The schooner Red, White and Blue arrived at Chicago Tuesday with her foretopmast broken off. Just how she lost the spar could not be ascertained, but is believed to have been broken by lightning.

James O'Neil, a member of the seamen's union and a well-known navigator, died at the marine hospital in Chicago on Tuesday. He was fifty years of age. The funeral expenses were borne by the union.

The wrecking expedition sent to recover the outfit of the wrecking schooner Lucy J. Clark has been successful. The schooner Cuyahoga arrived here with the outfit. The Clark was wrecked near Cross Village, at the foot of Lake Michigan, last fall. Three men were drowned.

Late charters to Kingston include schooners Samana, wheat at 4 cents; Bolivia, corn at 3¾c. To Port Huron, schooner Pewaukee, corn at 1½c. To Buffalo, propellers Portage, wheat; Tacoma, corn, and R. A. Packer, corn at 1¾c; schooner J. I. Case, wheat at 2c. Lake freights are 1¾ cents for corn and 2 cents for wheat to Buffalo. It is rumored that the rates of cargo insurance will be advanced September 1st.

The Rush street bridge will be formally accepted from the contractors to-day at 2 o'clock, during which ceremony navigation will be practically closed, as the council has given notice that no bridge between Rush street and Wells street will be opened between 2 and 4 o'clock. T. W.

DULUTH.

Special to the Marine Record.

The Wallula cleared Saturday with 700 tons of copper ore from Montana (valued at $100,000,) and 45,000 bushels of wheat. The copper is the first shipment of a consignment of 10,000 tons to follow this season.

Schooner F. B. Gardner, from Toledo on the 10th of June, is now discharging her cargo of coal at the Ohio Central Coal and Barge Company's dock.

The first shipments of iron ore from the Vermilion mines have reached Two Harbors by rail, this being about one year from the time work was first commenced on the Duluth & Iron Range Railway. The company will commence to ship ore by lake about the 15th of August, by which time the road will be ballasted up to the mine.

The Ohio Central Barge & Coal Company have received about 75,000 tons of coal this season.

The total arrival of coal at this end of the lake for the season is as follows: 160,000 tons at Duluth, and at South Duluth, 30,000.

That report of the chamber of commerce special committee on harbor had the good effect of securing a recommendation from Major Allen for a considerably larger appropriation.

The Canadian schooner Breck arrived here and will take a load of timber down the north shore for the Canadian Pacific. There are now orders in here for a million and a half of timber to be used in the construction of bridges, etc., along the line of the road. B.

FRANKFORT.

Special to the Marine Record.

Mr. Kern and assistant lighthouse repairers, have finished their work on South Harbor pier head light and returned to Detroit. They moved the house to the outer end of the pier and put up a new, substantial tramway of heavy timber, to withstand the driftsand and ice in the fall and winter. Mr Kern had the misfortune to lose his watch on the lake. It lays in twenty feet of water.

Speaking of watches. One of the crew of yacht Grand Rapids Eagle, while sailing across Platte Bay last Saturday, lost overboard a valuable gold watch, worth $150, it lays in twenty-five feet of water. and a buoy is placed near by to mark the spot. The owner intends to send a diver to pick it up.

The yacht Evangeline of Pentwater was stolen recently and later found beached at Otter Creek, Platte Bay. Her owner was notified, who took her back to her home port.

Colonel Lion Silverman, of Chicago, is spending a few days in Frankfort. He says that he and A. E. Goodrich bought the old sidewheel steamer Huron in early days and brought her on Lake Michigan and started the first boat of the now well known Goodrich Transportation Company. They next bought the steamer Ogontz and Mr. Silverman sold out to Goodrich, and engaged in other business. Colonel Silverman holds a life free pass on the boats of the Goodrich line.

The tug L. Q. Rawson, has been thoroughly rebuilt at Manistee and now comes out spik span new; she will engage in towing here, Captain Robertson in command.

A party of United States harbor engineers spent last week in resurvaying Frankfort harbor and found no less than 18 to 16 feet in the channel.

D. C. Whitwood, of Detroit, who took the first contract to build the harbor here, in 1867, spent the past week in Frankfort on the Lake. C. B.

BUFFALO.

Special to the Marine Record.

A board of inquiry, consisting of Collector William Livingstone, Captain G. P. Slicer and D. B. Hodgson, of Detroit, has been formed for the purpose of investigating the causes that led to the sinking of the Federal steamer Fessenden at the entrance to Prentiss Bay, July 8th. The board is empowered to summon witnesses and will sit in Buffalo.

Captain Putnam, of Wilson, is building a canal schooner of 7,000 bushels capacity at this port, which he expects to have in commission in about a month. She will be 92 feet over all and 22 feet beam. D. S. Austin & Co. will furnish her outfit.

The name of the propeller Colorado, whose repairs are about completed, will be changed to Lackawanna.

The Fessenden has had the damaged plates in her hull replaced by new ones, and is again ready for her mission.

Reports are prevalent here that the line propellers will refuse to carry grain from Chicago to this port for less than 2½c.

The expected advance in coal freights took place yesterday. Quite a number of engagements were made at 70 cents to Milwaukee and Chicago, a raise of 10 cents. Charters comprised the steamers Clyde and John Pridgeon for Chicago, steamers Progress, J. C. Kershaw, Belle Cross, schooner Marengo, and barges Little Jake, G. H. Wand, S. Clement and Chicago Board of Trade, for Milwaukee.

DAMAGES TO THE ALBERTA.

The Detroit Free Press makes the following statement in regard to the damages done to the Alberta in the collision with the J. M. Osborne, and the following interviews with officers as to how it happened: The Canadian Pacific steamship Alberta arrived in port and was placed in the drydock. When the water was pumped from the dock a huge hole in the port bow of the steamer was revealed, the result of colliding with the steambarge John M. Osborne on Sunday. The whole bow on the port side was stove in as far as the forward bulkhead and the stem slightly bent. The bow on the starboard side is also bent and bruised as far as the bulkhead. There are eleven frames broken and nine plates broken and badly bent. Mr. Kirby commenced a survey of the damage yesterday, but will not be through until sometime to-day. Captain Anderson, master of the steamship, refused to state any facts regarding the collision to a reporter, but said that the accident took place in a fog and was unavoidable.

STATEMENT OF THE FIRST MATE.

G. W. Simpson, the first mate of the Alberta, stated that before reaching Iroquois Point they encountered a heavy fog. "I was on deck before we reached Iroquois, and on reaching that place the captain relieved me. I started to go to tea, but the captain asked me to remain on deck, as the fog did not show any signs of lifting, and he felt some anxiety. After passing Point Iroquois I went to tea, and when I returned the fog was still heavy and had not lifted any. We continued under check, sometimes actually stopping to make sure that we were all right in our course. The fog whistle on the Alberta was sounded every two minutes. The captain and I stood on the bridge constantly until we heard the fog signal at Whitefish Point, when I turned in. About 11 o'clock I was awakened by a terrible crash. I jumped up and ran on deck and perceived that we had collided with some craft. I ran down below to see if all the bulkhead sluices were closed, and found that they were all shut tight but one, which was partly open. Closing, this I started for the deck, and in going up the stairway heard calls for the lifeboats. I then went to the forward freight hole and lifted the hatch. There was no water in that compartment, which assured me that there was no danger of sinking. On going on the promenade deck I saw the sails and rigging of the steambarge, which was at our starboard side. I saw a man climbing up the mizzen rigging of the steambarge. He had a child on his back. I stepped over the rail and stood on the anchor of our boat holding onto the rail with one hand. In this position I took the child from the man and handed it to some person on our forward deck. The man again went down and I waited until he came up again with another child, which I took from him also. While standing on the anchor I heard some person on the barge call, 'some of you steamboat men come down and get this man out of the fire hole.' Just then the captain called to me and I ran to the bridge. He said 'see to getting one of the life-boats into the water.' I then ran aft and saw that the second mate and some of the crew had a boat ready to push overboard. I then went forward and heard some one calling from the steambarge that one of the ladies was off, but on making an inquiry found that the ladies were all on our steamer. I then went back to the bow of the Alberta and could hear water rushing into the steambarge. While standing in the bow some person handed me two books from the rigging in the steambarge, which I supposed were the ship's books. I placed the books in my room and returned to the bow of the propeller. The barge was sinking very fast, and while I was standing there the water was foaming over the bow of the barge, and in a few minutes she went down with a terrible roar. As the water was foaming over the rail of the barge I yelled to the captain to back out, and when the barge went down we were about twenty feet away. Our life-boat pulled over the place where the barge had sunk and picked up one man, who was taken on board. I saw two yawls rowing around which were from the barges the steambarge had in tow. They returned to the barges, but I can't tell whether they picked up any person or not. Those of the crew whom we had on board were placed on the steambarge Hecla, which was brought into the neighborhood of the disaster by hearing the alarm whistles. After everything was over the captain and I went between decks and found that there was no danger of sinking. We came to the conclusion that our damage was so serious that it would be prudent not to continue on our route, and so we headed for the Sault, where we arrived about 1 o'clock on Monday morning. Part of the Alberta's cargo was unloaded, and a telegram was sent to the managers of the line, notifying them of the disaster. A reply was received which ordered us to go to Detroit for repairs if the damages were of a serious character. At the time of the collision the passengers appeared very courageous, and not a scream was heard from the women. All the passengers were left at the Sault to await the next steamer. I think that the whole affair was over and the steambarge sunk out of sight in less than thirty minutes from the time the crash took place.

Martin J. Burns, second engineer on the Osborne, arrived in port yesterday from the Sault on the steambarge Business. Burns made the following statement: "I was asleep in my room shortly before the accident, but was aroused by hearing the signal to increase the speed of the barge. I jumped up, and could hear the noise of a propeller coming through the water. I looked out of my door and saw a steamer about twenty feet away and almost upon us. A moment more she struck us just aft of the mizzen mast. The crash was terrible, and the Alberta came into us with such force that she crashed right through the hull into the boiler, in which there must have been a huge hole knocked, for as soon as we were struck the room I was in was instantly filled with scalding steam. I shut the door and threw myself on the floor, being almost smothered. I realized that if I stayed in the room but a few moments it was certain death, so I got up and attempted to raise the window with the intention of getting out. On raising the window the steam rushed in so fast that it forced me back. I then went to the door and opened it. With a desperate effort I managed to get out. I held my right hand up to my face for protection, and on rushing out of the door it was terribly scalded, as you can see. After getting out of my room I ran around to the stern and got upon the hurricane deck, and from there managed to get aboard the Alberta, where I was furnished with clothes, having had nothing on but my night dress.

"In going around to the stern I met Captain Wilford's two little children, Miss Ella Ford, friend of the captain and his wife, C. L. Scoville, chief engineer, James Taylor, fireman, and Thomas Barnes, deck hand. All of these persons were saved except Barnes, who went down into the fire hole to save his partner, Mat Conners, and was unable to get back owing to the barge filling with water, and both perished. There was another deck hand lost, but I forgot his name. I think it was a passenger on the Alberta named Cook that carried the captain's children up the rigging. This man went back to the hold to try and save the fireman, but he was unable to get back and perished. We were all placed on board the steambarge Hecla, and from that barge part of the crew were transferred to the barge Thomas Gawn, one of the Osborne's tow barges which passed down yesterday in tow of the Hecla. I was put off at the Sault, where I had my scalded arm bandaged. When I went to bed there was a heavy fog and the Osborne was sounding her signals regularly."

MUTINY AND MURDER.

The startling story that the crew of the schooner Julia Baker, from New York for Point a'Pitre, had mutinied, killed the captain, John Lewis, and had been selling the cargo in the West Indies, led the owners of the vessel, Warner & Merritt, to send the following dispatch by telegraph:

"PHILADELPHIA, PA., Aug. 1, 1884.—To the collector of customs at Key West, Fla.: We have reason to believe that Captain Lewis, of the schooner Julia Baker, has been murdered, and that the person calling himself Lewis is an imposter. Kindly ascertain what has been going on; why the vessel deviated from her course; what has become of her cargo, and all particulars. Things appear very mysterious and demand a sharp investigation. Telegraph full particulars quickly. WARNER & MERRITT."

The following answer was received:

"KEY WEST, FLA., Aug. 1, 1884.—To Warner & Merritt, Philadelphia, Pa.: The master assigns no reason for deviating from his course. He has noted the protest, claiming the foremast sprung and the craft leaking. A survey has been held to-day. He recommends the discharge of the cargo. The original manifest was lost. The lumber was washed overboard, and a portion of the flour is missing. The master's statement is rambling and conflicting. Send a description of the original Captain Lewis. We have taken possession of the vessel and are awaiting your further instructions.

"RAMON ALVEREZ."

It is said the Julia Baker has been cruising in West India waters, selling her cargo, principally flour, at rates much below the market price. Captain Lewis was about 40 years of age, rather tall and stout, and the description of the present commander is altogether different. Albert Merritt, of the firm of Warner & Merritt, expressed the opinion that a mutiny occurred on board the schooner; that a fight took place, in which Captain Lewis was killed, and that the crew, seeing they were in for it, determined to sell the cargo and escape. Warner & Merritt received a dispatch from the Collector at Key West stated the captain and four men of the schooner Julia Baker had been arrested.

In looking over the old files of the Sandusky Clarion, of which the Register is the outgrowth, we find in the issue of March 5, 1827, a detailed review of the commerce of Sandusky from the issue of the first issue of that paper in April, 1822, up to March, 1827. It appears that the number of arrivals by lake each year was as follows: In 1822, 178; 1823, 190; 1824, 254; 1825, 280; 1826, 355. Of the arrivals in 1822 six were steamboats, (the Chippewa, Henry Clay, Superior, Pioneer, Niagara and Wm. Penn.) The shortest season of navigation was that of 1823—from March 31st to December 13th; and the longest in 1824—from January 1st to December 29th, the bay being closed for two days only.—*Sandusky Register.*

"DEEPER WATER, LARGER SHIPS."

Under the above title the Chicago Times has the following interesting article on the improvement of the channel at the Lime Kiln crossing:

As amended by the Senate, the river and harbor bill appropriated $200,000 for Detroit river (instead of $100,000,) $15,000 for Pentwater, $45,000 for Superior Bay and harbor, and $85,000 for Grand Marais harbor. The Lime Kiln crossing is in Detroit river, and every large vessel bound up and down the lakes must pass that point. It is solid rock bottom, and the work of blasting and dredging out the rock has been going on for several years. There are swift currents in the river there, and when there are storms raging the stage of water fluctuates fully five feet. Craft now engaged in lake commerce draw fifteen to seventeen feet of water, and craft of still larger dimensions will be built if the depth of water at the Lime Kilns is made sufficient and safe. Owing to the blasting already done, there are sharp ledges of rock which must be cleared away. Since the work began at the Lime Kilns, three or four years ago, the lake shipping has taken rapid strides. It has made such craft as the Onoko (three thousand tons of coal) and the Golden Age (115,000 bushels of grain possible. The enlargement of St. Mary's canal and Canadian enterprise in enlarging the Welland canal have also aided, and instead of 500 ton vessels, the lakes now have whole fleets of 2,000-ton vessels, and transportation has been cheapened from 18 cents per bushel on corn to Buffalo to 2 cents and 3 cents per bushel. The improved channels and the complete surveys and charts have also helped the introduction of iron shipbuilding on the lakes. An iron boat is more durable than wood if she has sea room, but the iron is more easily punctured than wood when it comes in contact with a snag or a sunken rock. When the iron propellers first came out they met with so many accidents that the underwriters charged three times the rates charged wooden craft, and the owners finally put them into drydock and covered the iron hulls with wood. The last few years new iron boats have come out and they are proving very successful, and the rate of insurance is the same as on wooden craft. A dozen of the finest steamers on the lakes now are iron and others are in course of construction. The new lake revenue cutter Fessenden, just put afloat on Lake Erie, was built at Buffalo, and is iron—a fact which will greatly encourage the building of iron merchant craft. Without the improvement of the Lime Kiln crossing, however, these iron boats would not be possible. The propeller Merchant, the first iron craft on the lakes, wet several valuable grain cargoes at the Lime Kilns. Her career was one succession of costly disasters to the insurance companies. She finally struck on Racine reef. A wooden boat would have been rescued, but the Merchant was punctured, and, once sunk, she could not be raised, having nothing of the buoyancy that a wooden craft possesses. She proved a total loss with her cargo, and nothing is to be seen of her.

A TALE OF SUFFERING.

Captain Williams, of the schooner Windsor, which arrived in port yesterday afternoon, relates the particulars of the hardships and sufferings of two yachtmen, off Sheboygan, Wis. When the Windsor was about sixteen miles northeast of Sheboygan, Monday evening just before dark, Captain Williams discovered an object several miles ahead which he at first made out to be a small row boat. The schooner's glasses were brought to bear on the strange object, and after a time Captain Williams thought he could make out a man signaling with a handkerchief. The Windsor's course was made directly for the object, and before an hour had elapsed she was close enough for Captain Williams to see two men clinging to the bottom of some small craft. Holding on to the keel with one hand they were wildly waving their coats with the other, hoping to attract the attention of the Windsor's crew. Finally the vessel was abreast of the castaways, and her yawl was lowered and manned, and under Captain Williams' directions was pointed for the men. Just as they reached the capsized boat one of the men threw up his hands and tumbled into the water from sheer inability to hold on to his east any longer. He sank beneath the surface without a struggle, and must have drowned but for one of the Windsor's crew jumping overboard and bringing him to the surface. The rescued and rescuer were drawn into the boat, and the remaining castaway was also taken from his perilous position. He had no sooner been seated in the Windsor's yawl than he fell in a dead faint. As the weather was threatening Captain Williams abandoned the capsized yacht to her fate, and put out for the Windsor with the two men he had snatched from the jaws of death, for death would have been only a matter of a few hours to both men but for the timely appearance of the Windsor. Both the castaways were lifted aboard the vessel, where restoratives were applied with success. The men gave their names as John Nelson and William Lawler, and said they belonged at Sheboygan. Last Saturday forenoon they agreed to enjoy a little recreation by taking a sail in a small yacht upon the lake. The boat was engaged and the wind being brisk they were soon out far enough to escape the notice of persons ashore. The sky began to grow threatening about 11:30 o'clock but neither Nelson nor Lawler anticipated danger, and they did not take the precaution to lower their canvas, consequently the hurricane which played such havoc here a few hours later struck them about noon with all sail set. The little boat turned over with the rapidity of a flash of lightning and both her occupants were tumbled into the seething lake. Being powerful swimmers they succeeded in reaching the capsized yacht and crawled upon her bottom and it required all their strength to hold on. Seated in this perilous position during the heavy rain storm which followed their sufferings were intense. The fierce northwest wind carried them out into the lake where there was considerable sea, and the small boat commenced to break up. During Saturday night the castaways saw the lights of several vessels and they cried themselves hoarse in vain attempts to attract the attention of the lookouts. When daylight broke Sunday morning there was not a single sail in sight, but they were hopeful that they would soon be picked up by a passing steamboat. Their hopes were not fulfilled. By Sunday noon both the men began to experience the pangs of hunger, as neither had eaten anything since early Saturday morning, and this, coupled with the sun's scorching rays, reduced them to a state of weakness which made it impossible for them to hold on to the keel of the boat. Monday night numerous squalls struck them, and they suffered from pelting rain again. Both men had nearly given themselves up as lost, and would soon have drowned but for the appearance of the Windsor. When they sighted her in the distance they clung to the bottom of the capsized yacht with renewed strength, but when they saw the Windsor's boat approaching their joy was so great that they relaxed their caution. Lawler nearly lost his life through it after all. Captain Williams landed both the men in Sheboygan.—*Inter Ocean, July 31.*

PROPOSED STEAMER LINE.

The placing of a steamer on the route between this port and the Thousand Islands, by the New York, Ontario & Western Company was a stroke of policy destined, without doubt, to prove a paying investment. Railroad travel is not so enticing to pleasure seekers, who have abundance of time, as to induce them to accept it in preference to a steamboat excursion where cool breezes refresh the system and beautiful scenery captivates the eye. The single steamer put in service by the N. Y. O. & W. Company is probably but the nucleus of a line which will bring a large amount of summer travel through our city, especially from the east. It is said that negotiation is now pending between the officials of the Delaware, Lackawanna & Western and those of the New York, Ontario & Western for the establishment of a line of steamers to run in connection with both roads between here and the Islands, and possibly extend the route to Montreal. It is believed this can be done advantageously for both companies, and be the means of securing the greater part of the summer travel from the east to the Islands, Montreal and the White Mountains. The proposal is, to place two first-class upper saloon steamers on the route. There can be no question but the proposed arrangement, if perfected, will be the means of attracting a largely increased number of tourists through our city. There is every reason to believe that the negotiations now pending will result in the establishment of the proposed line. It is to be hoped no obstacle may arise to prevent its accomplishment.—*Oswego Times.*

LAUNCH OF A GREAT SHIP.

The Cunard Line steamer Umbria, the largest vessel afloat excepting the Great Eastern and the City of Rome, was launched June 25th, from the yard of John Elder & Co., Fairfield, Govan, for the Cunard Company. She measures 8,000 tons gross, her length is 520 feet, her breadth 57 feet, and her depth 40 feet. Her engines are designed to indicate 12,500 horse power, the most powerful marine engines yet constructed. She was named the Umbria by the Hon. Mrs. Hope. She is built entirely of steel, is divided into ten water tight compartments, and has five decks. The promenade deck extends for 300 feet over the whole breadth of the vessel, and the saloons will all be proportionately large. It was matter of remark among the company present at the launch that it is less than ten months since the keel of the vessel was laid. The new ship will run between New York and Liverpool.

WORK ON THE WELLAND CANAL

The Canadian government has become convinced that in the interest of Canadian trade the Welland canal should be opened so as to give fourteen feet of water on the sills, and that this important work should be begun at an early date, so that it may be completed by the spring of 1886. Much work has been already done with that desirable end in view. Port Colborne and Port Dalhousie are now finished so that vessels drawing fourteen feet of water can enter. The foundations of all the permanent structures of the canal are at the proper depth, and what is needed is in some places to raise the bank so as to afford the requisite depth of water. When finished, vessels carrying large cargoes can pass through.

THE ALBERTA-OSBORNE COLLISION.

The Chicago Tribune cites, as if it were an anomaly in marine insurance, the alleged clause in the policy of the Canadian Pacific Railway Company's steel steamer Alberta whereby the underwriters become insurers not only against the injuries which the Alberta may receive in collision with other vessels, but also against all damages she may inflict on other vessels by collision not exceeding the total amount insured on the Alberta. If our contemporary will consult Parsons or any other convenient work on marine insurance, it will learn that the principle that marine insurers against collision shall become liable to vessel owners not only for the damages the insured vessel may receive, but for those it may inflict, and for which the vessel insured may be liable to the vessel it injures, is a very old and familiar one in maritime law. The courts in Massachusetts and New York have agreed in holding that even in policies which merely contain the word "collision" as one of the risks insured against the underwriters become liable for damages inflicted to the extent of the liability of the vessel insured and to the extent of the sum insured as well as for damages suffered. This also is the English doctrine. Where the law, irrespective of any special clause, would be so interpreted the special clause can be no anomaly.

The Alberta, therefore, can not be said to be licensed by the insurance companies to "run down and sink as many boats as she can and they will foot the bill," in any other sense than most English and many American vessels are, nor in any other sense than under the fire clause her officers are licensed to set fire to her; or under the clause against wrecks, to run her ashore; or under the clause against general average, to throw her cargo overboard; or under the clause insuring against capture by pirates and armed enemies on the high seas, to run her into the hands of an enemy. All insurance is, in one sense, a license either to do or to suffor the acts insured against without loss, since if it were not this it could not be a contract of indemnity against the modes of loss insured against. All England has been agitated for two years past by the charges publicly and officially made by Mr. Chamberlain and others connected with the government, to the effect that the methods of marine insurance practiced in England are leading to the wanton and intentional destruction of many English vessels, and to the loss of an extraordinary number of lives. A bill was recently, and we believe is still pending whose design is to check this tendency, which on the one hand has been denounced as a slander on English vessel masters, and on the other has been resolutely asserted to be founded on a very large mass of facts, which imperatively show that English masters have a skillful habit of wrecking their vessels whenever ship values are declining.

This is facilitated by the other rule of law distinguishing marine insurance from fire insurance, that on every marine policy the sum insured must be paid without regard to the value of the property. If it be true that the Alberta has been sailed recklessly the loss of American vessels occasioned by collision with her would be paid for to the extent of the mere pecuniary loss, provided every such collision case were thoroughly prosecuted and every prosecution were fairly decided. For the loss of life incident to such calamaties there would be no redress, and the charge of recklessness made against Captain Anderson becomes in effect little short of being equivalent to a charge of wicked and detestable piracy. Anything like proof of an intent to run down American vessels less capable of withstanding collisions, or of willingness to run them down under equivocal circumstances, would transfer the whole affair to our criminal courts for investigation. In the case of the steambarge J. M. Osborn, of Cleveland, sunk by the Alberta on Sunday night, it is stated that the Alberta would be libeled by the Osborn's owners for damages immediately on her arrival at Detroit.—*Inter Ocean.*

TUG CAPTAINS.

There is not a class of men engaged in nautical pursuits who have to encounter and avert danger oftener than tug captains. Their daily existence is fraught with danger, and this is especially true during busy times. In Chicago, where the river is treacherous and narrow, when there is a constant outpouring and influx of vessels and steamers, the tug captain must be constantly on the qui vive, for the slightest relaxation from his usual watchfulness might result in doing thousands of dollars damage. When the boats are busy, and there is a good deal of work ahead for them, the captains are apt to become reckless, and will take chances which ordinarily they would not run under any circumstances. Persons who are detained at bridges often find fault when they are delayed by several tows passing up slowly and blocking the draws an unusually long time. They are apt to remark that the boats could be run considerably faster, but then they do not know that by doing so the tug men would run a narrow chance of sinking their tows. The slightest slip, or the slightest lack of judgment, will sometimes cause irreparable damage. A successful tug captain's first requisite is coolness, and if he does not possess this he is of no use whatever.

A CRAFT OF FIFTY YEARS.

The schooner Racine arrived in Chicago recently from Frankfort with lumber, and went to the market docks to remain until her cargo was sold. During the day there was a "snarl" among the numerous craft there when one of them, from an inside tier, was being towed away, and a tow coming down the river from one of the branches collided with the Racine, carrying away her jibboom.

This is only a trifling item in the history of the Racine. She measures 176 tons, and was built at Cleveland by Sandford & Co. in 1834 and is therefore about fifty years old. The schooner Harriet Ross is often called the oldest vessel on the lakes. She was built in 1853 from the bottom of the schooner Cambridge, the Cambridge having been wrecked near Buffalo in 1852. How old the Cambridge was is not exactly known. N. B. Bradley, of Chicago, had the Ross built. The oldest steamer afloat on the lakes is the United States steamer Michigan—forty-one years. Next comes the Passport, on Lake Ontario—thirty-six years, and the Magnet, also thirty-six years. The schooner Warren, until recently in commission on Lake Michigan, was forty-eight years old. The schooner Two Brothers, recently dismantled at Milwaukee, is forty-five years old. The schooner Potomac, which met with disaster last season, was forty-one years. The New Hampshire, still in commission here, is thirty-eight years old; the Oddfellow, thirty-eight years old, and the Watts Sherman thirty-eight years. The Queen of the West was thirty-seven years, and the J. W. Brown (buried at sea off Chicago) was thirty-seven years. Captain "Cuba" Clark's schooner Westchester, which recently had the encounter on this lake with St. Elmo's fire, is also thirty-eight years old.

These are the correct figures, and as the oldest sail vessel afloat on the chain of lakes the schooner Racine is at the head of the class.

Captain O'Brien, of the Harriet Ross, also in the harbor here at present, insists that she is only twenty years old, but he is mistaken. Built in 1853, she is about thirty-four years old, even if no mention is made of the age of the Cambridge, and old navigators say the Cambridge was at least fifteen years old when she was wrecked.

The hull registers say the Racine was built in 1844, but this is an error. She was built in 1834. She has always been pretty well kept up and still seems to be a very fair vessel for lumber freights. She is owned in Chicago and has a Chicago crew.

A BABY AT THE MASTHEAD.

Not long ago an English lady took passage on a vessel bound from Kingston, Jamacia, to London. A large, strong, and active monkey on board the vessel took a fancy to the lady's child, a babe about two months old. The monkey would follow the lady from place to place, watching her as she rocked and fondled her little one. It so happened on a beautiful afternoon during the voyage that a distant sail attracted the attention of the passengers. The polite captain offered the lady the use of his glass. She placed her child on the sofa and had just raised the glass to her eye, when a cry was heard. Turning quickly she beheld a sailor in pursuit of the monkey, which had grasped the infant firmly with one arm and was nimbly climbing the shrouds. The mother fainted as the monkey reached the top of the mainmast. The captain was at his wit's end. He feared if he sent a sailor in pursuit the monkey would drop the babe, and escape by leaping from mast to mast. Meanwhile the monkey was seen to be soothing and fondling the child. After trying in many ways to lure the animal down, the captain ordered the men below and concealed himself on deck. In a moment, to his great joy, he saw the monkey carefully descending. Reaching the deck it looked carefully around, advanced to the sofa, and placed the child upon it. The captain restored the child to its mother, who was soon satisfied that her darling had escaped without injury.

A DEMAND FOR DEALS.

Again comes the demand from Liverpool and other ports in England for American deals to repair and rebuild worn out quays and docks. Some Michigan saw mills, which have on hand stocks of fine Norway logs, have already begun to cut these orders, and will ship them by rail to New York and they will be conveyed from that point to England by the regular steamship lines. There is talk of sending some lake vessels across the "big pond" with cargoes, as was done successfully in 1876. Now, since the new Welland canal is open, there will be a better opportunity than ever to make money out of this operation. Eight years ago the old canal prevented all but the old class of canal vessels reaching the St. Lawrence, and consequently only very small loads could be sent through. Cargoes twice as large can be sent through now, and a better class of vessels can be put into the trade. As yet nothing definite has been done regarding this matter, and perhaps nothing will be done until later in the fall, when vessels will be sent across in order to get the benefits of the winter season on the ocean.—*Inter Ocean.*

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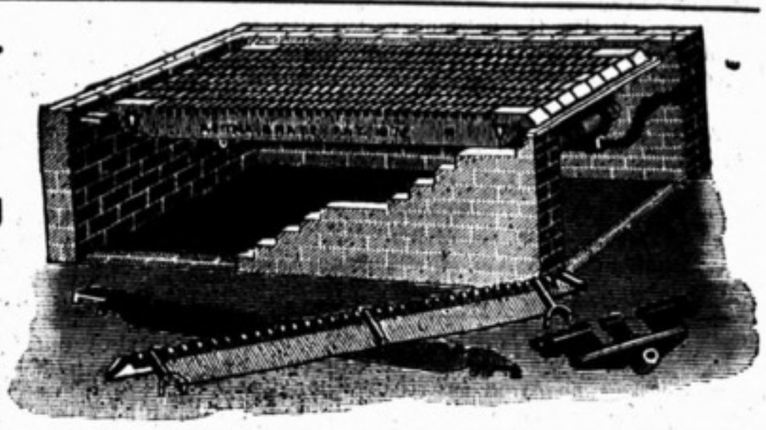

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CLEVELAND, OHIO, THURSDAY, AUGUST 7, 1884

BREAKWATER EXTENSION.

The action of the Cleveland Board of Trade last week has again brought up the breakwater question, and in an entirely new form. Some time ago that body appointed a commitee to look over the ground and take counsel in the matter, and last week this committee made its report, recommending the extension of the breakwater eastward to near the shore, in order to protect property on the lake front east of the harbor entrance at the mouth of the Cuyahoga river. All who have given any attention to the matter will readily admtt the advisability of such a work. A breakwater eastward along the lake front is a necessity, alike to the city and to navigation, therefore the possibility of the work is the paramount question, and the report of the committee of the Board of Trade is most important in that question which presents a solution on this point. The intention has been, and is at present, to extend the east pier fourteen hundred feet into the lake, in order to complete the plan for a harbor of refuge included in the breakwater already finished. It is well known to navigators that in its present state the breakwater makes the entrance to the harbor very hazardous in rough weather, but answers the purpose of a protection to the railroad embankments admirably. It is well enough to protect the property of railroads from the ravages of the lakes, but we are not prepared to acknowledge the justice of charging such expensive works to the account of harbor improvements, when, in reality, the utmost stretch of imagination can not endow the structure in its present shape with that virtue. For instance, there is a strong current and undertow running down along the breakwater and across the mouth of the river, as the deposit of sand, etc., directly off the end of the east pier, on which many vessels have stuck, both in arriving and departing, testify, and which makes, as we said before, the attempt to enter the harbor during the prevalence of a storm exceedingly hazardous; in fact, much more difficult than before the breakwater existed. We are inclined to think this effect was seen by the government engineers, but whether it was or not, it has for a long time been known, hence the question of extending the east pier far enough into the lake to have more room for entrance, as a means of counteracting the currents, has long been advocated, but which would probably leave the harbor with much the same objection as now obtains, that is, instead of the current carrying vessels, trying to make the harbor, on the beach at the railroad docks, it would carry them against the extended east pier and pound them to pieces. The plan of extending the breakwater eastward to near the shore has been advocated by vessel owners and business men as a means of making the basin available to the purpose for which it was intended, and seems to us feasible and good, and should be pushed to an early issue. To take up the breakwater at such point as might seem best, after leaving a sufficient area for entrance to the harbor, and extend it along the lake front east, would confer many and large benefits upon the city, and obviate at the same time the present ills of the harbor. The committee that has reported on the question enumerates as benefits the protection of the shore line east of the river, the ability of the city to make acres of new and available land, the extension of the Lake Shore Park to a frontage on deep water, thus giving our citizens an opportunity for healthful, aquatic sports, bathing and boating in summer, and skating in winter, all of which are now unattainable. Great advantages would result to shipping facilities in many ways, and more important than all, a complete harbor of refuge would be formed, exceeding in extent and safety any on the whole chain of lakes. The report of the committee was put into the form of resolutions, urging the matter upon the attention of Congress, and passed. As above stated, there is but one side to the question, so far as desirability is concerned. To make the harbor complete a further expense must be entailed. To turn that expense into a different channel and accomplish the same purpose is entirely reasonable. There are always adversaries to every new measure advanced in the way of river and harbor improvements, but this one seems altogether unassailable.

Now, it is known that in the present basin we have 2,700 feet between the land line and the breakwater, and the owners of the land fronting on this boundary have long cast greedy eyes upon this apparently useless body of water, and have secured signatures to a petition asking the Secretary of the Treasury to grant them permission to build docks into the basin 1,500 feet, probably 500 feet more than they desired, and the Secretary has granted them the 1,000 feet that they had in mind to secure, which will render the basin still more useless as a mooring ground or harbor of refuge. As it is now, any vessel master standing off the harbor would very much prefer going to anchor in the open sea than enter the basin when he sees there two vessels at anchor. We insist that five hundred feet of the present basin to be given up to land owners is qnite too much, but if they want 1,000 feet let them dig and dredge for it in their own land possessions, as it is not the province of the government to donate to individuals property for the advancement of their own business interests, especially at the expense of the maritime interests of the country.

While discussing the subject of breakwaters there is another phase of the matter which we think will be found worthy of consideration. The arms of the structure should be left open at either end, that is at the east and west, sufficiently to admit of the passage of a vessel, and also be provided with an independent L to break the waves and facilitate the current in the water. Clear water in the lake, as well as elsewhere, results from motion or current that keeps it active, consequently to build an enclosure around some hundreds of acres that will tend to stagnate the water inside is clearly going against sound sanitary principles. And when a large and filthy river enters into that enclosure the danger of making it impure is doubly enhanced. This condition of things has been brought about, to a certain extent, by the continued dredging up the river, leaving no fall to its course for a number of miles, and the breakwater, as it stands at present, tends to confirm the evil. The arm of the structure, reaching as far eastward as the mouth of the river, and entirely closing the water to the westward against the motion in the lake, cuts off the natural eastward flow of the water from the river, at least until the river water can make its way, reinforced by copious showers, out into the lake beyond the spur of the breakwater. By examining the water from the extreme end of the piers, or from the breakwater, the murky stream from the river and the clear water from the lake may be distinguished by a clearly defined line. Before the breakwater was built the stream of impure water seldom extended into the lake such a distance, showing that the new structure breaks the natural current of the lake that formerly took the river water off to the eastward much more rapidly. In ordinary weather clear water could formerly be found eastward of the river at no great distance from the shore, while now the lake is impure and covered with the foulness of the river fully a mile out, anywhere between the mouth of the river and Case avenue. Moreover, with a large area of water westward of the river inclosed by the breakwater, it stands to reason that there is no current in that expanse, for there is nothing but the wind to make a current. It is an established fact that wind produces currents when it has a sufficient expanse of water to operate upon, and which assists the natural current of the lakes from Superior through Erie. A northeast wind, therefore, having no counter current to contend against, is very likely to set the river water back into the already stagnant body of water inclosed by the breakwater. Whether these conditions had anything to do with causing the recent excessive impurity of the Cuyahoga we are not prepared to say. It will be well enough, however, to take this subject under consideration while the new extension is being discussed and give us, not only a healthy body of water, but a basin that will be a harbor of refuge in fact as well as in name.

GEORGIAN BAY.

Although the old charts of Georgian Bay were well taken and very useful to the present time the many unmarked dangers that have recently presented themselves to navigators, and by which many lives and ships have been lost, induced the Canadian government to take immediate steps toward perfecting a new chart, and a surveying party is at work taking comprehensive soundings. Captain A. M. McGregor, an old Georgian Bay pilot, is in command of the party. Work was begun last spring at Killarney, a small village on the main land, and the expedition is now at work near the Isle of Cones. An attempt will be made to complete the survey of the entrance to Georgian Bay this season so that a chart of that portion may be published at once, and if the wrecks at present visible at Cape Hard prove anything, this part of the chart will be a great boon to lake navigators. Sounding in the open bay are taken from the stern of the survey steamer, where an engine for winding up the sounding line is situated. In bays and harbors they are taken from a boat rowed by four oarsmen. The soundings are made in lines every third of a mile, and closer together when the bottom shows indications of being dangerous. When the weather is fine fifty miles of soundings are taken in a single day, but the average day's work is somewhat less. It is probable that the complete chart will be out in about five years, but every year the part completed during the summer will be published so as to give pilots the benefit of all recent discoveries.

FURTHER evidence of the need of harbor police comes to us this week in the fact that a captain was assulted on his own schooner for making an effort to dispose of a loafer, and a prize package vendor robbed of his wares on the docks in Chicago. We do not desire our readers to think that sailor men are the ones pointed at in these articles, but a gang of tramps who invest the docks and markets where vessels tie up, and who are without the slightest suspicion of a conscience as to the baleful effects of wrong doing.

THE committee appointed by the Senate at the last session of Congress for the purpose of inspecting the shipyards, and steel producing interests of the country as they affect the shipbuilding interests, consisting of Senators Hawley, of Connecticutt; Miller, of California; Aldrich, of Rhode Island; Butler, South Carolina, and Morgan, of Alabama, met in New York City yesterday for the purpose of organizing for the work on hand, and will at once proceed on their travels. They will prepare a report for presentation to the Senate at the opening of the next session of Congress.

THE lighthouse board has issued instuctions for the re-establishment of the land Erie lighthouse on the original site.

The Niagara Falls Gazette says that the Maid of the Mist will not be built by Buffalo parties, but the contract has been awarded to J. C. White of Port Robinson. The keel is to be laid at once. Messrs. Carter and L. Blond, for whom the boat is building, expect to have some interesting exercise.

THE SCIENTIFIC SHIP.

LOCKPORT, July 31.

To the Editor of the Marine Record:

DEAR SIR—The article credited to the Brooklyn Eagle in your issue of the 17th instant, "Sailing the Waters," is instructive and points to the many practical arguments that have been produced in the long-time mooted questions, both of safety and speed, in marine propulsion. They are valuable ones, and it is well to reproduce them. Each of them causes ideas looking to the future possible. What was their aim?

Apparently they aim to get the greatest degree of speed at the lowest cost of power. There are many things to take into consideration before this can be attained in perfection. Rowing, sculling and paddling are primitive motions, but the last mentioned comes the nearest to direct action in propulsion, *i. e.*, a vertical hold in the water by the blade, and it moved in line of passage. This has in it the true and scientific principles of propulsion. When the greatest degree of speed is attained at the lowest cost of power, it will be by a device based on these principles. This device must be protected from harm from all natural causes. Your editorial in the issue of your paper of the 24th instant is to the point, and clearly indicates the necessity for more economical propulsion. But how is this to be attained? First, the resistance to the passage through the water must be reduced to its minimum. There are two principles which will do that. One is to give a vessel a form best possible to pass the water. The other is to reduce the weight as low as possible so as to displace the smallest quantity of water. Can this be done with vessels as now formed? It can not. As they come from the hands of the builders they are as staunch as they ever can be, but can not be used without ballast, or load, having no stability. Steamers often have to go from port to port without load. To take in and discharge ballast is quite expensive, to say nothing about loss of time. Suppose two vessels of equal displacement, light, with 2,000 tons displacement, each, were required to cross the ocean, and one could go as she was, and the other could not, until she took in 2,000 tons of ballast to give her stability. She would then have 4,000 tons' displacement, and if 2,000 more in coal had to be added, she would then, on starting, have 6,000 tons displacement. The first mentioned vessel would need only about one-third the quantity of coal, as her displacement would be so much less, only 2,000 tons; add to that 750 tons of coal, her displacement at the start would be but 2,750 tons, against the other's 6,000. Probably the 6,000 tons would give the vessel twenty-five feet draft of water, and it of the same mould, the one with 2,750 tons displacement would not draw over ten feet. It requires much more power to displace water at twenty-five feet deep than it does at ten, on account of the difference in pressure. It can be seen at a glance, supposing that both vessels were of the same mould and equal power, the great advantage the light one has over the other. She would be at no expense for ballast, and lose no time on account of it, and her displacement resistance would be two-thirds less. You point, in your editorial of the 24th instant, to the great resistance now met, and until this can be reduced great speed can not economically be had. In my article in your paper of the 10th ult. I say in relation to the safety ship that I am writing up, "In fact her stability will be at its acme when she has no load. Of course it would follow that her speed was also at its acme." She represents the first mentioned above, light.

I am now an old man, and my life has been one of experiment and observation. I have witnessed many of the experiments of others. I have weighed every argument that I have met. All that is scientific and truthful I have in the safety ship, and no man can dispute them. Steadiness, stability in rough times, is one of the best aids for speed. This she, the safety ship, has to perfection. Auxiliary sails is another great aid to speed. My ship has these in perfection, and set low, on principles that give the greatest power. The best time to use auxiliary sails is when the wind is forward of the beam, from the fact that the motion derived from the steam increases the wind power on the sails. On the contrary, the wind aft the beam, the steam motion

greatly decreases the wind power. As, if the two motions were equal in speed, the wind could impart no power. The safety ship's sails, wind forward of the beam, are mainly in one plane, and the sails borrow wind, one from the other, and impart great power. The principles that give this great wind power are given, from my pen, and illustrated, in the Aquatic Monthly for March, 1875. If this vessel was of the tonnage that you indicate in your editorial, she would have in her main line of sails a plane 250 feet long by 75 feet hoist. If the wind and steam speed of the vessel were equal, say twenty miles an hour, and the course was at an angle against the wind of 45 degrees from its course, these sails would receive a force of wind equal, at least, to thirty miles an hour. The points in this vessel fully "fill the bill" of economy. Space in this will not allow of details. As an unsinkable ship, she also fills the bill pointed at in your article in the 31st of July number. Unsinkable. Her displacement buoyancy, say of 6,000 tons, is all of it under her intact, and in cells inclosed by both longitudinal and cross section bulkheads Her above water buoyancy, also inclosed in cells, is greater than her under water buoyancy. It will not be possible to sink her by natural causes, or by collision. If her whole bottom was knocked off her above water buoyancy would sustain her. Collision could not reach her under water buoyancy. All objectives in her have a scientific origin, nothing has been left to judgment or opinion. I have no desire in this to gain notoriety. My aim has been to have Congress appoint a board of scientists to investigate the truth of this matter. By agitating it this may be brought about.

Yours truly,

JOSEPH W. NORCROSS.

HARBOR IMPROVEMENTS.

Major Charles J. Allen, of the Corps of Engineers, who has charge of the improvements of rivers and harbors in Wisconsin, Minnesota, and Dakota, has made his annual report. Appended is a tabulated statement of work proposed, money at hand, and money asked for continuing the improvements during the fiscal year, 1885-86:

RIVERS AND HARBORS AND WORK TO BE DONE.	Amount available.....	Amount asked for.....
St. Croix River, below Taylor Falls, removing obstructions	$9,838	$26,450
Chippewa River, Wis., at Yellow Banks, continuing work of protection.....	785	3,000
Chippewa River, confining flow to one channel	16,097	25,000
Dam and lock at Meeker's Island, construction.....	25,000	.....
Mississippi above St. Anthony's Falls, removing obstructions.....	951	10,000
Lock and dam on Red River of the North, construction	46,947	100,000
Red River of the North, dredging	12,137	10,000
St. Anthony's Falls, preservation	10,386	50,000
Reservoirs upon headwaters Mississippi and tributaries, construction of reservoirs to collect surplus water from precipitation, to be released to benefit navigation.....	166,632	140,000
Surveys for above reservoirs, examinations.....	.....	50,000
Duluth Harbor, dredging	54,570	125,000
Superior Bay, Wis., dredging.....	49,023	50,000
Grand Marias Harbor, dredging...	12,716	20,000

Colonel Poe, in charge of river and harbor improvements in Michigan has also submitted his annual report which is as follows:

RIVERS AND HARBORS AND WORK CONTEMPLATED.	Amount available.....	Amount asked .....
Sault St. Marie River, Mich., general improvement.....	$202,220	$500,000
St. Marie's Falls canal, and river, deepening channel.....	.....	250,000
Dry dock at St. Mary's Falls' canal, building the same.....	.....	150,000
Cheboygan Harbor, deepening the channel.....	5,000	45,000
Thunder Bay, deepening the channel.....	4,541	5,458
Au Sable Harbor, making channel.....	4,900	27,221
Saginaw River, deepening channel.....	51,606	200,000
Harbor Refuge, Lake Huron, Mich., dredging.....	76,031	98,968
Ice Harbor, Belle River, widening channel.....	2,000	....
St. Clair Flats Canal, renewing superstructure of dikes.....	.....	132,908
Clinton River, deepening the channel	... .	25,000
Detroit river, constructing straight channel.....	200,113	27,586

Referring to the Saginaw river improvement Colonel Poe says: "I beg to invite attention to the necessity for legislation to prevent injury to the channel by waste material thrown into the river by the lumber mills, and rejected from the rafts. This matter is so serious that prompt action must be taken if we would avoid having to duplicate the work already done.

The improvement of Sault Ste. Marie river Colonel Poe considers a National benefit. The estimated cost of the work is $2,127,200. Of that sum $200,000 was appropriated in 1882, and $125,000 July 5, 1884. The engineer says: "With appropriations so small in amount it can readily be seen many years must elapse before the channel can be completed, and inasmuch as the work done can be of value only when the whole is finished it is respectfully submitted whether it would not be good policy to push the work faster than is possible with such small appropriations."

Lieutenant Colonel J. W. Barlow of the engineer corps, has forwarded the chief engineer his report for the fiscal year ending June 30, upon the work of improving the harbors of Lake Superior, east of Superior City, on Green Bay, and on the western shore of Lake Michigan north of Milwaukee. The following is the tabular statement and the amount of money available for the work on the several harbors named this year, and the appropriations recommended for the fiscal year of 1885—86:

RIVERS AND HARBORS. WOKK CONTEMPLATED.	Amount available.....	Amount asked for .....
Ontonagon, extension of piers.....	$15,144	$60,000
Marquette, extension of breakwater.....	12,167	63,000
Grand Marias, extension of piers..	40,000	200,000
Cedar River Harbor, Mich., extension of pier.....	16,119	40,000
Menominee Harbor, Mich., extension of pier.....	10,921	30,000
Oconto harbor, Wis., general improvement.....	15,195	50,000
Pensaukee harbor, Wis., general improvement.....	5,815	35,000
Green Bay harbor, Wis., dredging and repair of revetments.....	18,863	37,000
Bay Canal, Wis., dredging.....	11,105	20,000
Ahnapee harbor, Wis., finishing piers and blasting channel.....	15,092	35,000
Kewaunee harbor, Wis., pier extension, dredging and making a cut through spit.....	18,875	50,000
Two Rivers harbor, Wis., pier extension and dredging.....	12,846	50,000
Manitowoc harbor, Wis., pier extension, dredging and sup r structure on south pier.....	16,889	39,000
Sheboygan harbor, Wis., pier extension.....	28,344	60,000
Port at Washington, Wis., pier extension	10,060	17,000

With reference to the improvement of the harbor of refuge at Grand Marias, Mich., Colonel Barlow says: "Considering the safety of crews the value of vessels, and cargoes annually subjected to risk in navigation on Lake Superior, the sum of $200,000 is asked for this harbor for the fiscal year ending June 30, 1886, that work may be vigorously prosecuted by pier extension, so as to afford safe anchorage, and thus lessen the chances of casualty."

NOTICE TO MARINERS.

Notice is hereby given that on and after August 15, 1884, a ten-inch steam whistle will be sounded at Sturgeon Bay canal pierhead light station during thick and foggy weather, giving blasts of five seconds' duration, followed by intervals of twenty-five seconds.

Notice is hereby given that the fog bell at Muskegon, Mich., will hereafter be struck by machinery giving one blow at intervals of fifteen seconds.

By order of the Lighthouse Board.

STEPHEN C. ROWAN,
Vice Admiral United States Navy, Chairman.

[*Cleveland—Continued from 1st Page.*]

MILWAUKEE.

A charter was reported to have been made at 75c from Escanaba to a Lake Erie port. Shippers were offering but $1 from Marquette to Ohio ports. These are the lowest rates on ore ever known. The schooner City of Green Bay was chartered for ore from Escanaba to a Lake Erie port at 80 cents, and the schooner F. A. Georger is said to have accepted a lower rate between the same ports. Lumber freights are demoralized. Charters of steam craft for lumber from Muskegon to this port are being made at 90 cents, and $1 is being paid to sail vessels. These are the lowest rates known in years.

Captain James Trowell, formerly commander of the steamship Milwaukee, which many years ago plied between this port and Grand Haven, has been appointed harbor master, subject to confirmation by the council. Captain Trowell subsequently sailed boats of the Goodrich line.

GREEN BAY.

The sidewheel tug John Spry, belonging to the estate of the late F. B. Gardner, at Pensaukee, was sold to J. A. Counts, of Little Suamico; consideration, $500.

TOLEDO.

The independent tugs at Toledo were making so much money the association has left the field. All tugs now go as you please.

DETROIT.

Special to the Marine Record.

Aug 6—The destruction of property on the lakes during the month of July exceeds other corresponding months for many years past, the sum total being $248,142, an excess over the preceeding month of $119,842, and of July, last year, $107,217. There were ninety-eight disasters, which is seven more than in June, and are distributed as follows: Lake Michigan, 42; Lake Huron, 10; Lake Superior, 4; Sault river, 4; St. Clair river, 7; Lake St. Clair, 2; Detroit river, 7; Lake Erie, 17, and Lake Ontario, 5. The nature of the casualties may be summarized as follows: Disabled, $32,400; stranded, $30,600; heavy weather, $31,500; collisions, $78,842; fire, $17,300; capsized, $400; ashore, $500; lightning, $300. Included in the sum total is the loss or damage to cargoes, amounting to $56,700. The number of deaths from all causes was 31. Of these 25 were accidental, 2 from natural causes, 2 suicided, and 2 were murdered. It will be seen from the foregoing that Lake Michigan outnumbers all others in casualties, which may be attributed to the greater number of vessels there employed, together with the numerous accidents occurring in and about Chicago. Yet in point of losses by fire, Lake Erie has from the first exceeded all others combined, which reminds me that just forty-one years ago the fourth of this month one of the most destructive of those calamities occurred on that lake, off Silver creek, by the burning of the steamboat Erie, the loss of 225 lives and a valuation of property amounting to $300,000.

Well, the steamship Alberta has arrived here again, and, I regret to add, under entirely different circumstances than on her first appearance early in the season, when so many thousands were delighted to step on board and inspect the magnificent ship. She now presents a saddened appearance, with scars, indentations and bruises horrible to look upon. But these things, in due course of time, must needs happen on these inland ponds, over which are scattered so many reefs and shoals, together with the frequent visitation of dense fogs and terrible northers; it matters but little who is at the helm or who is in command. It is true, there are plenty of beacons, buoys, stakes, fog whistles, fog horns and entirely too many steam whistles to the square inch than the law should allow. Pray tell us of how much avail is a fog whistle or a fog horn during a dense fog when lights are unavailable, and with a contrary course of the wind so liable to deceive and mislead the most skillful of lake navigators. In the olden time we had none of these prerequisites, and, up to comparatively a late period, there were no charts to guide the mariner that he might escape destruction on some reef or shoal. A good compass and a knowledge of the lay of the land was sufficient to all intents and purposes, and I guarantee to say that in proportion to the number of vessels there were less accidents than are now occurring. But to use an old and not altogether hackneyed term, I will return to my mutton. I do not wish to leave the Alberta in so abrupt a manner. She has been the cause of an unfortunate disaster, and the Osborne lies in the depths of Lake Superior, and also the bodies of four persons, one of whom is at least deserving of a monument to his memory for the heroism displayed on that sad occasion. It has been stated that there are four possibilities under which an accident of this kind may occur and no blame attach on either hand. A steamer moving along in a fog with her speed abated and the usual alarm being sounded, comes in contact with another from a misapprehension of sound, certainly ought to be considered as one of them, and from the statements thus far received, I do not consider there is blame on either hand, but simply unavoidable. I am unacquainted with either of the masters in the late collision, and present my views from a disinterested stand point. The damages to the Alberta are estimated at $12,000 and the repairs are going on at the Detroit Drydock Company's works.

There have been rumors of late, emanating from Lake Michigan, of reviving the lake and ocean trade by sending vessels to Europe with deals. The season thus far bears a close comparison to 1859 and few following years, when the traffic first originated, and with the results of the lessons therefrom, it is hardly presumable it will again be ventured upon, and the reasons then are the same as now. There must be a free course from the lakes to the Atlantic, a sufficient depth of water for large vessels and the removal of all tonnage dues. When this is accomplished it will be time enough to talk of sending vessels on European voyages.

The schooners M. P. Barkalow, John Jewett, J. J. Hill and F. L. Jones arrived here on Sunday, simultaneously, with coal, but as all are consigned to the one dock, there will be more or less delay until all are discharged.

There is, on the part of some of the wiseacres here, a faint hope of better times not far distant. Bountiful crops are at hand, and such things, they say, must needs be. On the other hand, a shipper of long experience gives it as his opinion that before September has arrived wheat will move from Chicago to Buffalo at 1 cent per bushel. Of course time will determine which of the prophets are the most wise, meantime the faint-hearted must whistle to keep their courage up.

The wrecking steamer International, which left here two weeks since to raise the propeller Georgian, sunk at Peninsula Harbor, Lake Superior, succeeded in getting her afloat on Saturday last, and she is now on her way here for repairs, without assistance. The work was much aided by John Quinn, the submarine explorer, who effected repairs so as to enable her to proceed on the way here. She was lifted by two large pontoons, each capable of raising 1,000 tons. Before returning the wrecker will raise the steambarge J. C. Severance, which lies sunk in ninety feet of water near the mouth of the Michipicoten river.

Charters here possess but little interest. Wheat, Detroit to Buffalo, 2 cents; coal, from Black River, O., to Walkerville, opposite here, 35c per ton.

Captain Stone, of your city, was in this city on Saturday, on business matters.

Another of the old veteran craft on the lakes passed up this (Tuesday) forenoon, which, at one period, was one of the finest barkentines afloat, but her attractions have long since disappeared and she now travels among the common heard, yclipt barges. Her name is the Sonora, built at Sackett's Harbor thirty years ago.

A gentleman long engaged in the stave business informed me that a revolution is near at hand in the mode of shipment of that commodity, and instead of their delivery at points for vessels, they will be taken by cars from the place of manufacture to their destination, and a large percentage saved.

J. W. H.

AMHERSTBURG.

George Gott, deputy collector at Amherstburg, has been appointed collector of customs at that port, vice E. Anderson, deceased. This appointment gives satisfaction to the general public and the marine interests are delighted. Collector Gott was always a very obliging officer, and in the discharge of his duties endeavored to make it pleasant for those having business to transact with him, and always used good judgment when circumstances demanded. No doubt Amherstburg will become a popular port with the tug captains as well as with the vessel interests generally.

KINGSTON.

The Canadian yacht Norah won the honors in the regatta on the 4th, the Aileen and Garfield both outsailing the Verve, which did not get a place. The Iolanthe won in the second class and the Mabel in the third.

Captain Sweet, of the J. F. Maynard, was the first man to run the route from Cape Vincent to Alexandria Bay, thirteen years ago. After the T. S. Faxton was taken to Oswego, Captain Sweet made arrangements with the U. & B. R. R., and has since run in connection with their trains. He is one of the oldest and best known pilots on the river.

CHEBOYGAN.

A part of the Canisteo's machinery has been recovered and brought here. The Canisteo was sunk in collision with schooner George Murray several years ago near Waugoshance.

SAUGATUCK.

Special to the Marine Record.

The new steam yacht built by Captain J. B. Martel for Captain Sam Moore, of Chicago, was launched on Monday last. Her dimensions have been previously given in the MARINE RECORD.

W.

SUPERINTENDENT KIMBALL VINDICATED.

Special Agent Burns, of the Treasury Department, charged with the investigation of certain charges against the life saving service and against Superintendent Kimball, of that service, which were made in an article published in an Erie, Pa., newspaper in January last, has made his report to the Secretary of the Treasury. The article in question charged that the life saving service was grossly inefficient, and that Kimball, the general superintendent, was directly responsible for the appaling loss of life by reason of his mismanagement of the service in that he had, through jealousy of Captain Douglas Ottinger, who is a citizen of Erie, excluded from the stations the most effective apparatus and appliances (all of them claimed to be Captain Ottinger's invention,) and had substituted therefor inadequate appliances. In support of the charges special stress was laid in the article on adoption by Superintendent Kimball for use in the service of the Lyle gun and the breeches buoy as substitutes for the heavier gun invented by Captain Ottinger and the life car, also the latter's invention. Upon the publication of these charges Superintendent Kimball asked for an investigation and Special Agent Burns was detailed for that service. He finds that the charges were instigated by Captain Ottinger and published without malice by the newspaper, and that every material allegation contained in the charges as published is false. That the service was right in adopting the Lyle gun, as it is superior to any of the guns brought to his notice during the investigation and fills all the requirements more than any of them, and that every station is provided with a life-car as well as the breeches buoy it being left to the discretion of the station keeper to determine which he shall use on the occasion of a wreck. He states however that the breeches buoy is used much more frequently than the car, having in the last five years been selected in eighty-eight instances and brought to shore 747 persons, while the life car has been chosen but three times, rescuing seventy-four persons. The charges of inefficiency and mismanagement of the service, and of the jealousy of Captain Ottinger and his devices he finds to be flatly disproved by the evidence and says, on the contrary. "The service is shown to have a record of success which every citizen may justly be proud of," and that "a comparison with such services in other countries shown ours to be in the lead of all."

"The gist of the newspaper article," he further says "seems to be a sweeping condemnation of the service because it has not been allowed to remain in the crude condition in which Captain Ottinger left it on the coast of New Jersey in 1849. According to this article, in order to secure complete efficiency, it is only necessary to reduce the service to the primitive state in which it left Captain Ottinger's hands and add Captain Ottinger's sand wheel."

LIGHTHOUSE BIRD CATCHERS.

"Run wife! Go below or they'll be dashed to pieces!"

The keeper of the Atlantic City lighthouse was watching the hydraulic floating lamp in the top of the tall tower one night lately, and had just brushed a speck from one of the plate glass sashes through which the intense rays from the great fixed light that warns off all floating ocean life from destruction, were streaming, when, turning his head in answer to a strange flapping and whirring noise, he uttered the exclamation.

"What shall I do?" asked the plucky little woman, who is in the habit of keeping him company during the early part of his vigils.

"Go for the net! Drive them off! Take my overcoat with you and save all you can!"

In the almost white heat glow of the lamp, outside of whose radius everything was impenetrable blackness, a spectacle was presented unequaled in any of Dore's grotesque imaginings. Through the light, like motes in a sunbeam, and thicker than musquitoes, hundreds of dazed and frenzied birds, of various sizes were circling and gyrating, performing a mad aerial dance round and round the lantern.

Mrs. Wolf came in directly. "I can do nothing with them," she said; "there are thousands and thousands of them." From out the bulging pockets of the overcoats birds began to fly, now dashing at the windows as if to get out again, and the three or four palpitating feathered mites she held in each hand began fluttering and struggling to get free. They were of many hues, these southern travelers thus arrested and carried out of their northward migratory course, although in the fierce splendor of the illuminated arc outside they had all appeared luminous and white. There were robins, flickers, mudhens, and a few rail birds, and one poor little pee-wit, perched itself sociably on its rescuer's shoulder, uttered its peculiar note.

"Did you notice that scarlet tansiger in the house as you came up?" asked Abraham Wolf, the keeper, of his guest, the scribe. "Well, that gorgeous fellow got here from the West Indies somehow. I picked him up in the net one night during a heavy thunder storm. The net, you see, is on the land side, where all the birds come, and keeps them from spattering their blood on the glass. But the wild ducks, they tear the nets to shreads. We have had a few spring birds the last week or two, but this is the first large flock. Our house during the summer is nearly always full of them. We leave them loose and let them go where they want to. One night my wife and I took over 300 birds alive and let them go next morning. Rail birds, cat birds, wood thrush, missel, thrush, thistle birds and all the soft billed fly-catchers are the most numerous, but we get almost every sort. I keep a record of their visits for the American Ornithological society to help throw light on migration. I like to throw light on anything, you know—it's in my line."—*Philadelphia Press.*

The revenue cutter Bibb, which has plied between Ogdensburg and Niagara river for two years past, was a gunboat during the war and bears some scars as reminders of her early engagement. She is commanded by Captain Constable, a genial gentleman who has passed thirty-five years or more of his life upon the water, and is assisted by Lieutenant Barstow, to whom we are indebted for courtesies extended while inspecting the boat recently. Second Lieutenant Rhodes is the noted saver of lives, of whom nearly every one has read more or less, and who has been voted numerous medals by various humane societies. The following are the remaining officers: Third Lieutenant, Kimball; chief engineer, Kelley; assistant engineer, Owen, pilot, Nelson; boatswain, Nichols; carpenter, Carson; gunners and deckhands amounting, all told, to thirty-three persons, who find an elegant home on the Bibb. The cabin is richly furnished and is occupied by the captain. To enter the cabin officers rap, and, on appearing, salute the commander, and this naval formality is characteristic of the ship's discipline. The duty of the Bibb is to enforce revenue laws, naval laws and steamboat laws, and to save life and assist vessels in distress without charge. The men's rations are procured at Ogdensburg, and the coal at Oswego. During the war the Bibb was called the Moccasin. Captain Constable stated that in two seasons the Commodore Perry, on the coast, secured and paid to the government $16,000, out of which the government was being defrauded.—*Ex.*

A Buffalo paper says: The new propeller Perry, built by the Union Drydock Company, is still tied up in the harbor. The vessel has been accepted, but the machinery, which was built by an Eastern firm, does not work satisfactorily, and will have to be fixed up.

FOR SALE

Tug A. W. Wright.

Cylinder 14 by 16; boiler 9 feet long, 5 feet shell and carries 100 pounds of steam, and is in good business condition. There is no better boat of her size on Saginaw River. Hull 45 feet long, of wood. Address,

J. BELL,
Donnelly's Tug Office, East Saginaw, Mich.

PRESLEY & CO.,

Globe Drydock

Shipbuilding, Drydocking, Repairing and Spar Making.

CLEVELAND, OHIO.

Geo. B. Carpenter & Co.,

Ship Chandlers and Sail Makers.

Ship Chandlery Goods of all Descriptions.

MANILA ROPE OF THE VERY BEST MAKE

Steel and Iron Wire Rope and all Its Fittings.

202 to 208 South Water-st.,

CHICAGO, ILL.

WM. HINGSTON & SON,

Boat Builders,

Steam and Sail Yachts, Hunting, Fishing and Pleasure Boats, Shell Boats, Spoon Oars.

Foot of Porter Av., Buffalo, N.Y

W. W. LOOMIS,

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SHIP AND BOAT BUILDING,

Fishing Tugs, Wrecking, Repairing and Pier Building with Most Improved Facilities.

All Work Guaranteed. Correspondence Solicited.

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Boat Builders,

PLEASURE BOATS AND SAILING AND STEAM YACHTS, YAWL BOATS, SPOON OARS, STEERING WHEELS, ETC.

385 Atwater st., Near Riopelle,

DETROIT, MICH.

CUYAHOGA WORKS,

Established in 1834.

MANUFACTURERS OF ALL KINDS OF

MARINE ENGINES

AND

HEAVY MACHINERY.

Cor. Detroit & Center-Sts, CLEVELAND, O.

C. E. BENHAM,

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KEEPS IN STOCK

A Full Line of Vessel Supplies,

Lubricating and Lamp Oils of the Best Quality,

AND A GENERAL LINE OF LAMPS, CROCKERY AND TABLE CUTLERY.

OPEN DAY AND NIGHT.

TELEPHONE NO. 1540.

GRUMMOND'S

Mackinac Line,

For Mackinac, St. Ignace, Cheboygan, Alpena, Oscoda, Port Huron, Detroit and intermediate lake and river ports.

Steamer ATLANTIC, Capt. D. Nicholson,

Leaves Cleveland every Friday evening at 8 o'clock. During the warm weather and pleasure season the

Steamer Atlantic

Will extend the regular trip on to Petoskey, Harbor prings and Charlevoix.

CLEVELAND FORWARDING CO., Agents, Office and Dock, Foot of Superior-st., Cleveland.

BUTTS COAL CO.,

[LIMITED.]

Only Miners of

BUTTS CANNEL COAL,

and dealers in Gas Coals, Nut Coals, and Steam Coal for Tugs, Barges, etc.

CLARK I. BUTTS,

CLEVELAND, O. General Manager.

TRAVELERS' REGISTER.

LAKE SHORE & MICHIGAN SOUTHERN.

Commencing Sunday, May 11, 1884, at 12 o'clock noon the time given in the figures below is the new standard (Ninetieth meridian) time, which is thirty-three minutes slower than Cleveland time proper:

Eastward.	Arrive	Depart.
No 4, Fast Limited Express	*1 10 A M	*12 05 A M
No 8, N Y, B & A Express	*6 35 A M	*7 00 A M
No 26, Elyria Accommodation	†8 05 A M	
No 35, Buffalo Ac'm via Sandusky	†10 35 A M	†10 50 A M
No 35, Toledo Accom via Norwalk	†10 35 A M	†10 50 A M
No 12, N Y & B Fast Express	*1 55 P M	*2 25 P M
No 14, Special N Y & Bos Expres		5 00 P M
No 2, Night Ex via Norwalk	9 40 P M	†10 00 P M
No 22, Night Ex via Sandusky	†9 42 P M	
No 26, Conneaut Accommodation	†4 25 P M	

Westward.	Arrive.	Depart.
No 1, Fast Limited Express	*11 55 A M	*12 05 A M
No 23, Mich Express via Sandusky	*2 15 A M	*2 35 A M
No 3, Chicago Express via "	‡6 05 A M	6 30 A M
No 25, Mich Accom Norwalk		†6 10 A M
No 21, Toledo Ex via Norwalk	†12 55 P M	†3 20 P M
No 5, St Louis Ex via Sandusky	†12 15 P M	12 40 P M
No 9, Chi Pac Fx via Norwalk	*6 06 P M	*6 30 P M
No 31, Elyria ac to Elyria only		†4 30 P M
No 27, Conneaut Accommodation	†8 10 A M	

Sunday train for Nottingham—Depart 8:30 a. m. and 1:45 p. m.; returning, leave Nottingham at 9:05 a. m. and 3:45 p. m.

Reference marks—* Daily, † daily, except Sunday, ‡ daily, except Monday.

For full information as to trains and connections apply at the new city ticket office, corner Seneca and St. Clair streets, Lake Shore block.

BEE LINE

CLEVELAND, COLUMBUS, CINCINNATI & INDIANAPOLIS.

Commencing Sunday, June 8, 1884, trains of the Bee Line—Cleveland, Columbus, Cincinnati & Indianapolis Railway—will leave and arrive at Cleveland as follows, CENTRAL STANDARD TIME, 33 minutes slower than Cleveland time:

	Depart
No. 3, Columbus, Cincinnati & Ind Ex	7:00 A M
No. 23, Galion & Wheeling Express	6:40 A M
No. 9, Col., Cin., Ind & St. Louis Ex	*6:40 P M
No. 5, Col Cin., Ind. & St. Louis Express	*12 35 P M
No. 27, Galion & C.L & W. Acc	4:00 P M
No. 29, Massillon & Ulrichsville Ex	5.00 P M
	Arrive.
No. 8, Col, Cin, Ind. & St. Louis Exp	*6:40 A M
No. 20, Uhricsville & Massillon Ex	9:00 A M
No. 2, Col. Cin. & Indianapolis Express	9:50 P M
No. 14, St. Louis, Ind.. Cin. & Col. Ex	*4:45 P M
No. 22, Galion Acc	10:00 A M
No. 26, Wheeling Accom	4:30 P M
No. 4, Col., Cin. & N. Y. Express	1:15 A M

Trains marked * daily, all other trains daily except Sunday

E. B. THOMAS, General Manager.

O. B. SKINNER, Traffic Manager.

A. J. SMITH, General Passenger Agent.

CLEVELAND, OHIO.

New York, Pennsylvania & Ohio R. R.

NEW YORK, BOSTON AND THE EAST.

The Shortest and Quickest Route to Pittsburg, Washington and Baltimore and the Southeast.

Central or Ninetieth Meridien time. 33 minutes slower than Cleveland city time.

Until further notice trains will leave from the new Central Depot, South Water street and Viaduct as follows:

6.50 a. m. ATLANTIC EXPRESS—(Daily) Pullman sleeping and hotel coaches from Leavittsburgh 8:35 a. m. to New York, Albany and Boston without change. Arrive at Meadville at 10:40 a. m. (dinner) Franklin at 12:08 p. m, Oil City 12:30 p. m, Corry 12.35 p. m, Jamestown (Lake Chautauqua) 1.35 p. m, Buffalo 5:50 p. m. Rochester 8:20 p. m.; Hornellsville 6:00 p. m. [supper]; Corning 7:25 p. m. Elmira 8:05 p. m. Binghanton 10:05 p. m., Albany 5:00 a. m. Boston 1:45 p. m.; arriving at New York 6:15 a.m.

2:20 p. m. LIMITED EXPRESS—Through Pullman sleeping coach from Cleveland to New York. Arrives at Meadville at 6:30 p. m, Jamestown 8:47 p. m., Salamanca 9:45 p. m., New York 10:10 a. m.

11:00 p. m. NIGHT EXPRESS—(Daily except Sunday) Seeping coach from Cleveland Hornellsville. Arrive at Youngstown at 1:50 a. m., Meadville 3:25 a. m., Corry 4:59 a. m. Jamestown 5,57 a. m, Buffalo 9:20 a. m., Rochester 12:58 p, m., Hornellsville, 11:00 a m., Corning 12:07 p m, Elmira 12:40 p. m., Binghampton 2:19 p m,, New York 9:10 p. m. Arrive at Pittsburgh 5:50 a. m., without change.

2.20 p. m. PITTSBURGH EXPRESS — Daily — Through without change, Parlor car attached. Arrives at Youngstown 5:00 p m., Pittsburg 8:02 p. m., Washington 7:09 a. m, Baltimore 8:19 a. m.

4:11 p. m. MAHONING ACOMMODATION — Stopping at all way stations, arriving at Youngstown 6:55 p. m., Sharon 8:01 p. m., Sharpesville 8:10 p. m.

6:50 a. m. PITTSBURGH EXPRESS — Daily — Through without change. Arrives at Youngstown 9..30 a. m., Sharon 10:30 a. m., Sharpsville 10:40 a. m., Pittsburgh 12 45 p m., Returning, leaves Pittsburgh at 4:15 a. m., 7:45 a. m., 12:55 p. m., and 3:45 p. m.

10 35 a. m. YOUNGSTOWN AND PITTSBURGH ACOMMODATION—Stopping at all Way stations, arriving at Youngstown 1:40 p. m., Pittsburgh, 5.45 p. m.

Trains arrive at Cleveland, 6:15 a. m., 6:30 p. m., 10.20 a. m; 1:05 p. m., and 9:45 p. m,

This is the only route by which passengers can reach Corry Elmira, Binghampton, New York City and intermediate points without change. No change to Boston and New England Cities.

Baggage checked through to all points East

Through tickets and information regarding the route can be obtained at the office 131 Bank street, and at new Depot of N. Y., P & O R R., South Water street and Viaduct, Cleveland, O.

A. E. CLARK, Gen'l Pass'r Ag't Cleveland, O.
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Following is the time in effect June 1, 1884, and until further notice:

GOING EAST.

Lv. Chicago	7.50 a. m.		
Arr. Valparaiso	9.45 "		
" Fort Wayne.	1.30 p. m.		
" New Haven	2.05 "		
" West Leipsic.	3.56 "		
" Arcadia	4.49 "		
" Fostoria	5.00 "		
" Green Springs	5.45 "		
" Bellevue	6.10 "		
Lv. Bellevue	6.20 "	7.55 a. m.	
Ar. Lorain	7.50 "	9.16 "	Accom.
Arr Cleveland	9.02 "	10.22 "	
Lv. Cleveland		10.27 "	3.52 p. m
Arr Painesville		11.33 "	5:05
" Ashtabula		12 25 p. m.	6.03
" Conneaut		12.50 "	6.30 "
" Erie		2.09 "	
" Dunkirk		3.47 "	
" Buffalo		5.20 "	

GOING WEST.

Lv Buffalo	9.50 a. m.		
Arr Dunkirk	11.24 "		
" Erie	1.23 p. m.		Leave
" Conneaut	2.20 "		6.15a. m.
" Ashtabula	2.51 "		6.46 "
" Painesville	3.44 "		7.43 "
" Cleveland	4.52 "		8.55 "
Lv Cleveland	4.57 "	6.47 a. m.	
Ar. Lorain	6 12 "	7.35 "	
Arr Bellevue	7.35 "	9.10 "	
Lv Bellevue		9.20 "	
" Green Springs.		9.44 "	
" Fostoria		10.22 "	
" Arcadia		10 34 "	
" West Leipsic		11.30 "	
" New Haven		1 35 p. m.	
" Fort Wayne		1.50 "	
" Valpraiso		5.42 "	
" Chicago		7.50 "	

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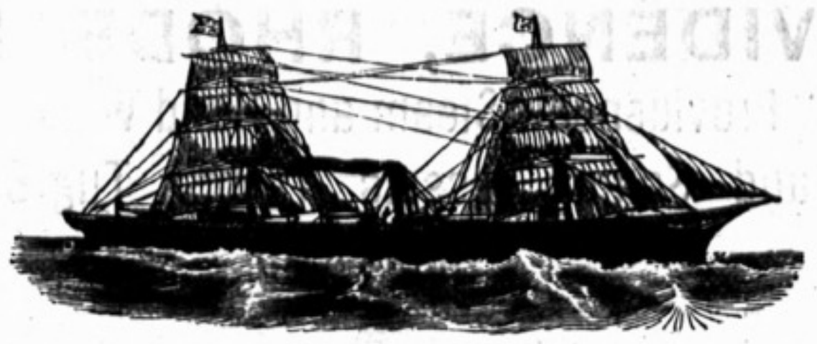

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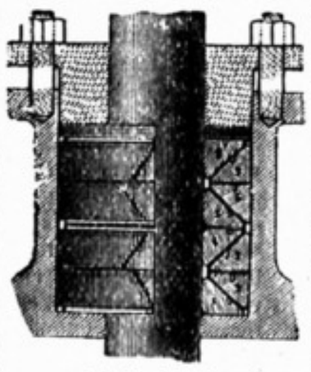

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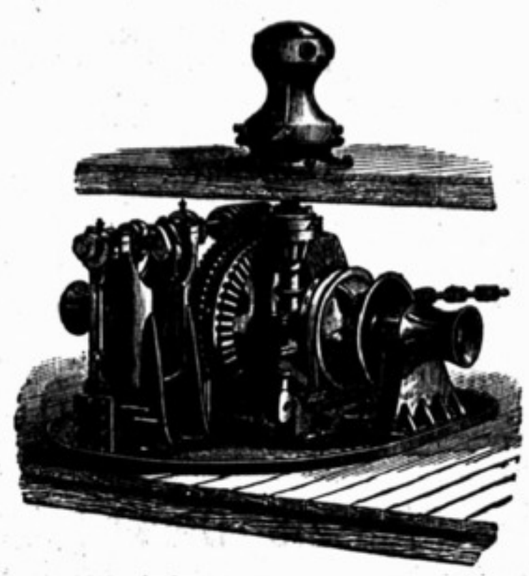
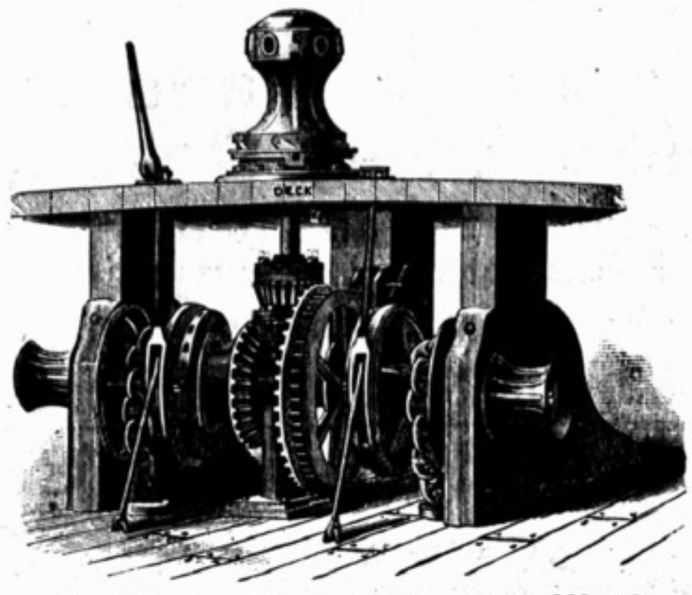


The Providence Patent Steam Capstan Windlass, New Style.



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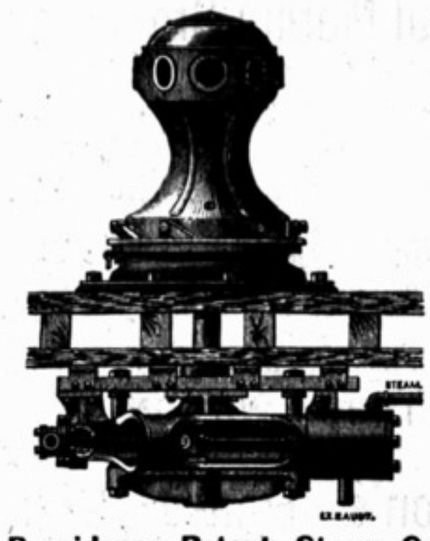

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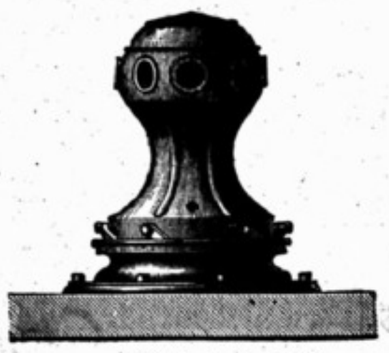

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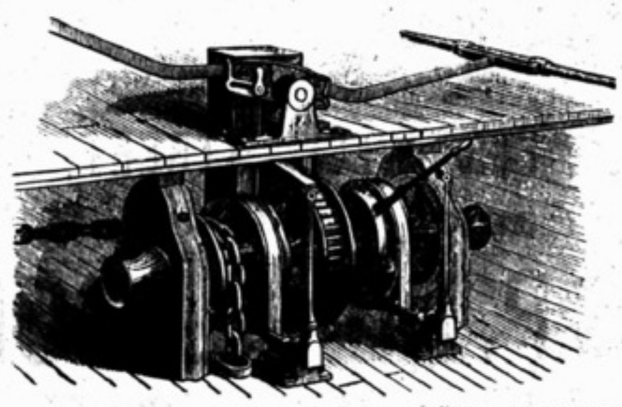
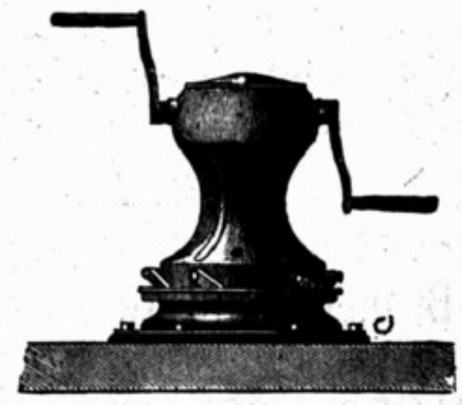


The Providence Patent Pump-Brake Windlass.



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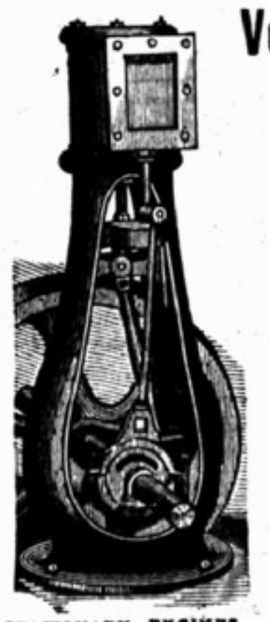

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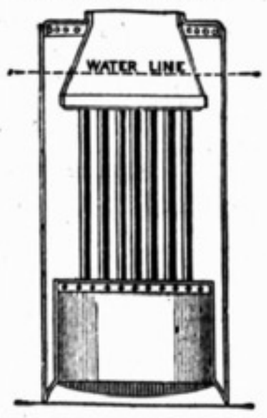

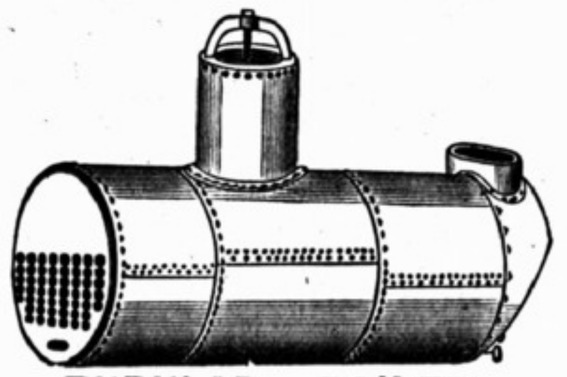

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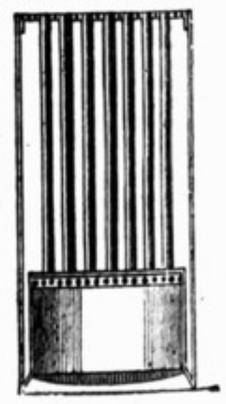

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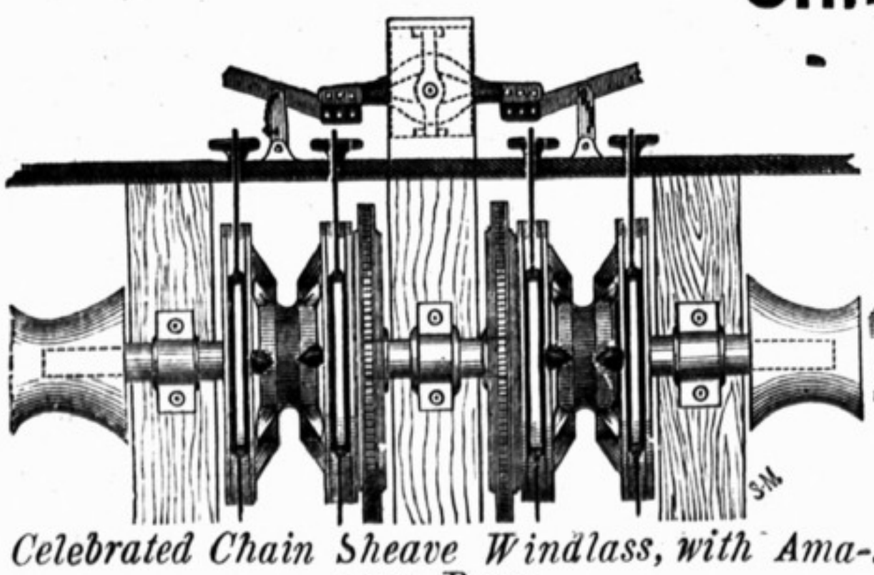
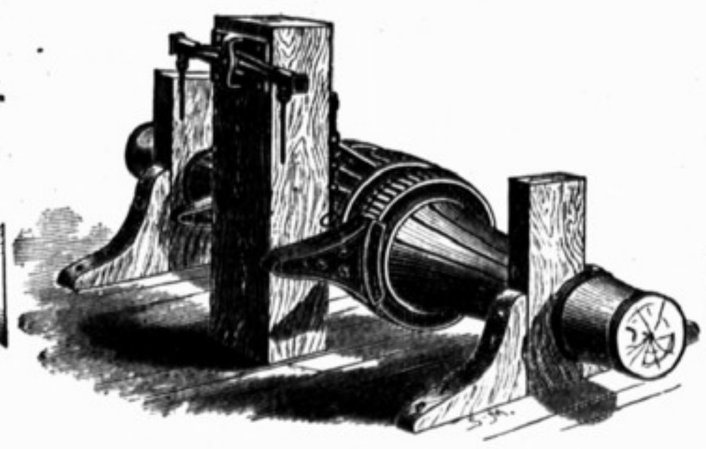
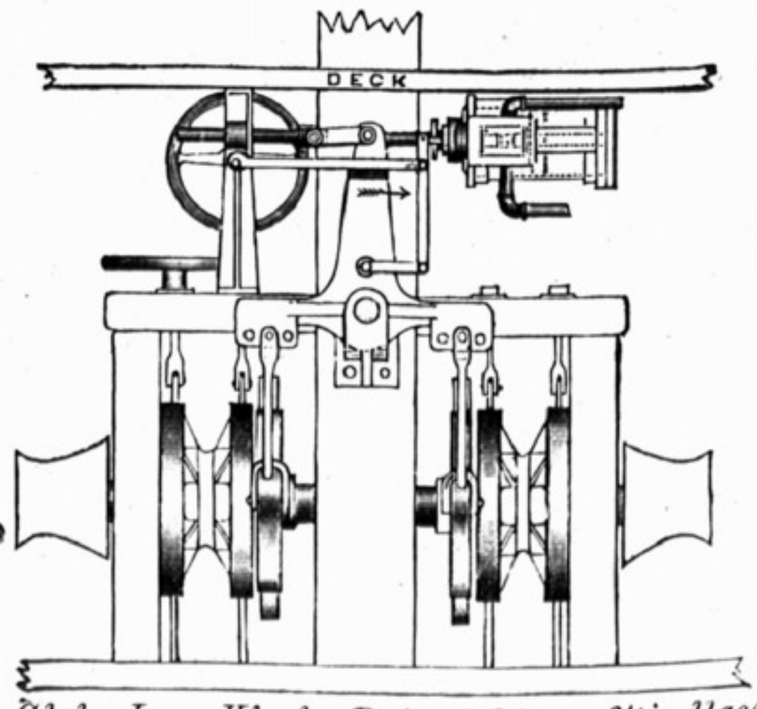


Celebrated Chain Sheave Windlass, with Amazeen Beam.



The Common Patent Windlass.



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